2018 Survey Report
McGee Lake Trend Station (WBIC 353200)
Langlade County

Introduction and Survey Objectives

McGee Lake is a 23-acre spring pond located in southeastern Langlade County. Our native species of stream trout, the brook trout, is the only trout species present. The brook trout population is supported entirely through natural reproduction and no stocking occurs. This spring pond is managed for quality sized brook trout and regularly produces good numbers of brook trout over the 12 inch minimum size limit. Fishing access is very good with two parking areas, one of which has a short carry-in access with a small dock for launching small crafts or float tubes. The WDNR owns the entire shoreline for anglers wanting to fish from shore. Objectives of this trend survey are to monitor trout abundance, trout size structure, and to evaluate angling regulations. The current regulations have been in place since 1990.

Fishing Regulations

Location	Category	Size Limit	Daily Bag Limit	Gear Restrictions
McGee Lake	Red	12 inches	2	Artificial Lures Only

WISCONSIN DNR CONTACT INFO.

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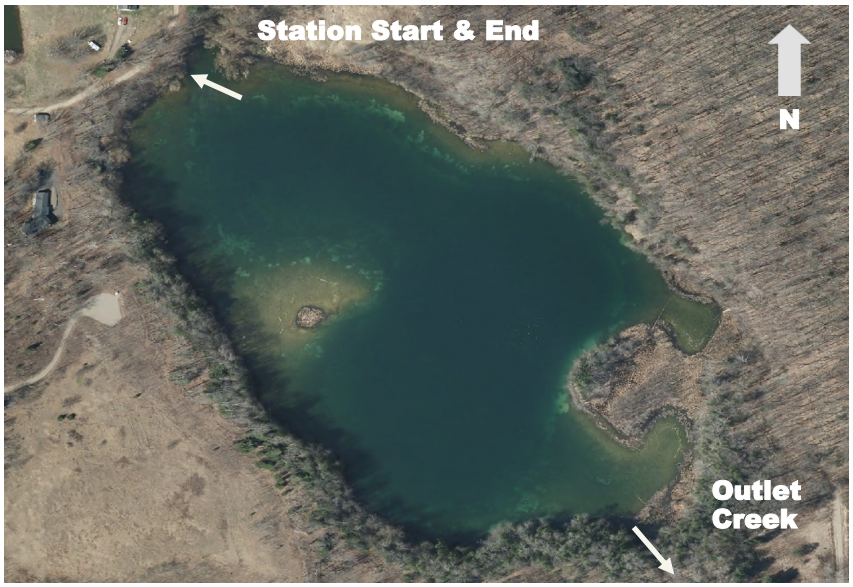
Survey Information							
Site location	Survey Dates	Station Length	Water Temperature (°F) Start	End	GPS Coordinates Start	End	Gear	Dip Netters
McGee Lake	10/18/2018 (Marking Run) 10/24/2018 (Recapture Run)	Entire Shoreline	49 46	- -	45.14340 -88.88597	45.14340 -88.88597	Boom Electrofishing Boat	2

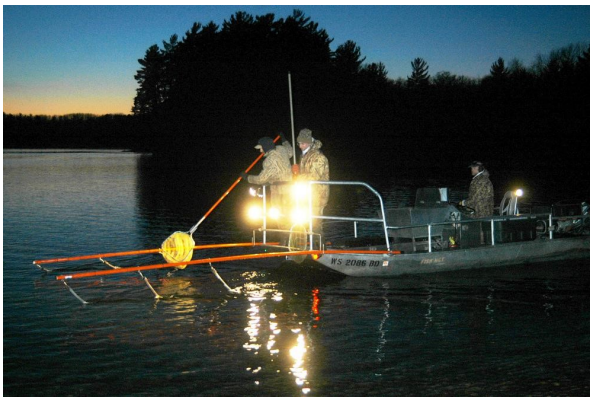


Survey Methods

- McGee Lake has been surveyed annually since 2008.
- This spring pond is 22.7 surface acres and is electrofished with a standard boom electrofishing boat.
- All captured trout are identified to species, measured for length, and examined for fin clips.
- On the marking (first) run a small portion of a fin is clipped on all 4-inch and larger trout to identify them as having been captured. The ratio of marked (clipped) and unmarked trout found on the recapture (second) run allow a population estimate to be calculated.
- Most 4 inch and larger trout are at least 1 year old and considered adults.

Metrics Used to Describe Trout Populations

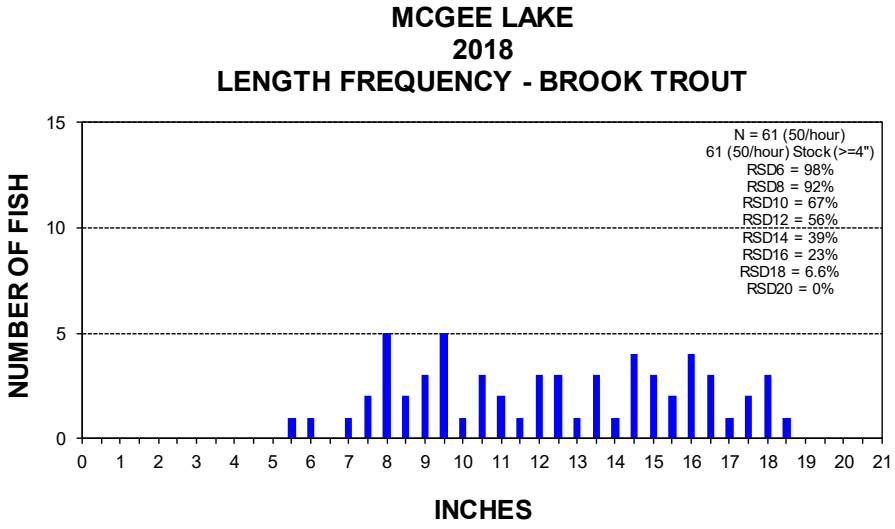
- **Population Estimate (Number of Trout Per Acre)** is the total adult population ≥ 4 inches and allows biologists to follow trout populations through natural up and down cycles. Population estimates are compared between years and between spring ponds.
- **Catch Per Unit Effort (CPUE)** is an indirect method of measuring fish population abundance. For all spring pond trout surveys we typically quantify CPUE by the number and size of trout captured per hour of electrofishing.
- **Length Frequency Distribution** describes trout size structure. It is the number of trout captured on the marking (first) run and grouped by half-inch size intervals.
- **Relative Stock Density (RSD)** is the percentage of trout that meet a minimum stock size (4 inches for stream trout) that are also over a quality size for that species. For example, RSD8 is the percentage of brook trout captured on the marking (first) run that were 8 inches and longer out of all brook trout captured that were at least 4 inches long.



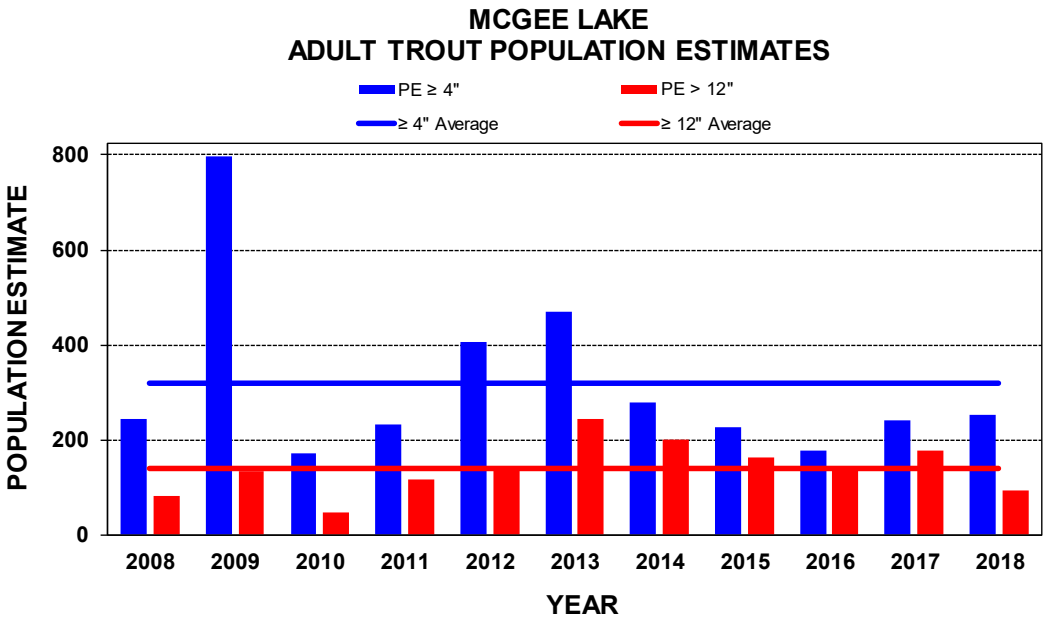
SPORT FISH RESTORATION

Your purchase of fishing equipment and motor boat fuel supports boating access and Sport Fish Restoration.

LENGTH FREQUENCY DISTRIBUTION



N = Total number of trout captured on marking run
Stock = Total number of trout ≥ 4 inches captured on marking run



Summary

- The 2018 survey estimated an adult (≥ 4 inches) brook trout population that was up 5% from the previous year and was 80% of the average.
- The adult population fluctuates from highs around 800 to lows around 175 (7.7 to 35.2 per acre).
- Years of lower abundance typically result in a higher percentage of quality size fish whereas years of higher abundance are usually the result of many 5-7 inch trout. This is likely related to density dependent factors such as food and habitat availability and carrying capacity of the spring pond.
- The estimated number of brook trout ≥ 12 inches was down 47% from the previous year and was 33% lower than the average.
- The estimated number of brook trout ≥ 16 inches (37) was 19% above the average of 31.
- The estimated number of brook trout ≥ 18 inches (7) was the highest ever.
- In 2018, the percent of 12 inch and larger brook trout (RSD12) was 56%. This was down 11 percentage points from 2017 when it was 67%.
- In 2018, RSD14 was 39%, down from 58% in 2017.
- McGee Lake is one of the top spring pond producers of brook trout, both in terms of abundance and size quality. Fluctuations in the population from year-to-year appear to be natural and are likely related to dynamic environmental conditions.
- Quality trout populations are the result of above average water quality and habitat. Maintaining, protecting, and improving water quality and quantity,